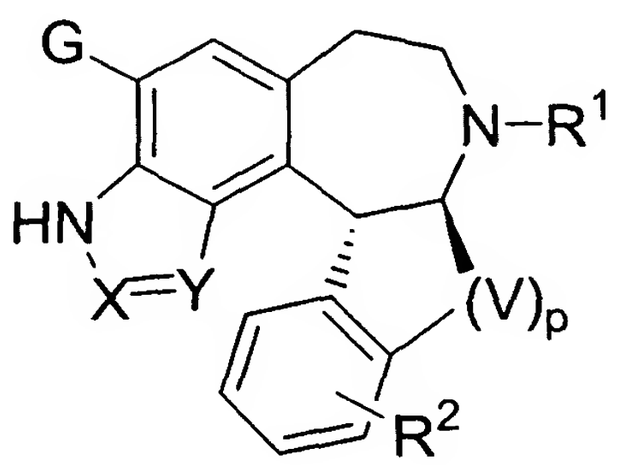
CLAIMS

WHAT IS CLAIMED:

1. A compound represented by the structural formula



formula I

or a pharmaceutically acceptable salt or solvate thereof, wherein

p is 0, 1 or 2 and when p is 0, the carbons to which $(V)_p$ is shown connected are not linked to each other but are linked to hydrogen;

G is hydrogen, halo, alkyl, alkylthio, nitro, nitrile, hydroxy, alkoxy, alkylsulfinyl, alkylsulfonyl, trifluoromethyl or trifluromethoxy;

V is $–CH_2$-;

X is selected from the group consisting of CH, C(alkyl), CCF_3 and N;

Y is selected from the group consisting of CH, C(alkyl) and N;

R^1 is hydrogen, alkyl, allyl, cycloalkyl or cycloalkyl(alkyl);

R^2 is hydrogen or 1 to 4 substituents which can be the same or different, each R^2 being independently selected from the group consisting of halogen, alkyl, alkylthio, alkylsulfonyl, hydroxy, alkoxy, trifluoromethyl, trifluoromethoxy, aryl, -CH=O, $-NO_2$, $-NR^{11}R^{12}$, CN, R^{10}-substituted aryl, heteroaryl, $-C(O)OR^8$, $-C(O)NR^3R^4$, $-S(O)_2NR^3R^4$, $-C(R^7R^8)NR^5R^6$, $-C(R^7)=NOR^4$ and $–C(R^7R^8)OR^6$;

R^3 is aryl, R^{10}-substituted aryl, arylalkyl, heteroaryl, alkyl or hydrogen;

R^4 is aryl, R^{10}-substituted aryl, heteroaryl, alkyl or hydrogen,

or R^3, R^4 and N of $-NR^3R^4$ together can be joined together to form a ring selected from the group consisting of azetidine, R^8-substituted azetidine, pyrrolidine, R^8-substituted pyrrolidine, piperidine, R^8-substituted piperidine, piperazine, R^8-substituted piperazine, morpholine and R^8-substituted morpholine;

R^5 is alkyl, arylalkyl, $-C(O)NR^3R^4$, $-S(O)_2NR^3R^4$, $-S(O)_2R^8$, $-C(O)R^8$, $-C(O)OR^8$ or $-R^9O$-alkyl;

R^6 is hydrogen, alkyl, aryl, R^{10}-substituted aryl, heteroaryl or arylalkyl, or R^5, R^6 and N in $-NR^5R^6$ together can be joined together to form a ring selected from the group consisting of azetidine, R^8-substituted azetidine, pyrrolidine, R^8-substituted pyrrolidine, piperidine, R^8-substituted piperidine, piperazine, R^8-substituted piperazine, morpholine and R^8-substituted morpholine;

R^7 is hydrogen, alkyl, aryl or arylalkyl;

R^8 is hydrogen, aryl, alkyl, arylalkyl or heteroaryl;

R^9 is hydrogen, alkyl, aryl, R^{10}-substituted aryl, heteroaryl or arylalkyl;

R^{10} is selected from the group consisting of aralkyl, heteroaralkyl, hydroxy, hydroxyalkyl, alkoxy, aryloxy, aralkoxy, acyl, aroyl, halo, nitro, cyano, carboxy, alkoxycarbonyl, aryloxycarbonyl, aralkoxycarbonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, alkylthio, arylthio, heteroarylthio, aralkylthio, heteroaralkylthio, cycloalkyl, heterocyclyl, Y_1Y_2N-, Y_1Y_2N-alkyl-, $Y_1Y_2NC(O)$- and $Y_1Y_2NSO_2$-, wherein Y_1 and Y_2 may be the same or different and are independently selected from the group consisting of hydrogen, alkyl, aryl, and aralkyl;

$R^{11}$is hydrogen, alkyl or arylalkyl;

R^{12} is $-C(O)R^{13}$, $-S(O)_2R^{13}$, $-C(O)NR^3R^4$ or $-C(O)OR^{13}$;

and

R^{13} is alkyl, aryl, R^{10}-substituted aryl, heteroaryl or arylalkyl.

2. The compound of claim 1 wherein

G is halo;

R^1 is hydrogen, alkyl, cyclopropyl or cyclopropylmethyl;

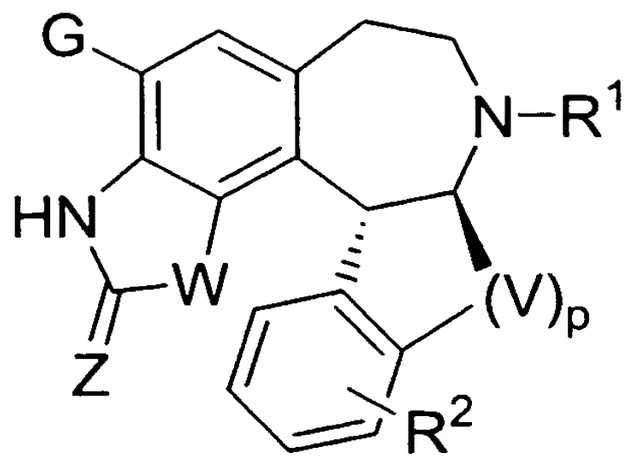
and

R^2 is hydrogen.

3. The compound of claim 1 wherein G is chloro.

4. The compound of claim 1 wherein R^1 is hydrogen or methyl.

5. A compound represented by the structural formula



formula II

or a pharmaceutically acceptable salt or solvate thereof, wherein

p is 0, 1 or 2 and when p is 0, the carbons to which $(V)_p$ is shown connected are not linked to each other but are linked to hydrogen;

G is hydrogen, halo, alkyl, alkylthio, nitro, nitrile, hydroxy, alkoxy, alkylsulfinyl, alkylsulfonyl, trifluoromethyl or trifluromethoxy;

V is $-CH_2-$;

W is selected from the group consisting of O, S NH and N(alkyl);

Z is selected from the group consisting of NH, N(alkyl), S and O;

R^1 is hydrogen, alkyl, allyl, cycloalkyl or cycloalkyl(alkyl);

R^2 is hydrogen or 1 to 4 substituents which can be the same or different, each R^2 being independently selected from the group consisting of halogen, alkyl, alkylthio, alkylsulfonyl, hydroxy, alkoxy, trifluoromethyl, trifluoromethoxy, aryl, -CH=O, $-NO_2$, $-NR^{11}R^{12}$, CN, R^{10}-substituted aryl, heteroaryl, $-C(O)OR^8$, $-C(O)NR^3R^4$, $-S(O)_2NR^3R^4$, $-C(R^7R^8)NR^5R^6$, $-C(R^7)=NOR^4$ and $-C(R^7R^8)OR^6$;

R^3 is aryl, R^{10}-substituted aryl, arylalkyl, heteroaryl, alkyl or hydrogen;

R^4 is aryl, R^{10}-substituted aryl, heteroaryl, alkyl or hydrogen,

or R^3, R^4 and N of $-NR^3R^4$ together can be joined together to form a ring selected from the group consisting of azetidine, R^8-substituted azetidine, pyrrolidine, R^8-substituted pyrrolidine, piperidine, R^8-substituted piperidine, piperazine, R^8-substituted piperazine, morpholine and R^8-substituted morpholine;

R^5 is alkyl, arylalkyl, $-C(O)NR^3R^4$, $-S(O)_2NR^3R^4$, $-S(O)_2R^8$, $-C(O)R^8$, $-C(O)OR^8$ or $-R^9O$-alkyl;

R^6 is hydrogen, alkyl, aryl, R^{10}-substituted aryl, heteroaryl or arylalkyl,

or R^5, R^6 and N in $-NR^5R^6$ together can be joined together to form a ring selected from the group consisting of azetidine, R^8-substituted azetidine, pyrrolidine, R^8-substituted pyrrolidine, piperidine, R^8-substituted piperidine, piperazine, R^8-substituted piperazine, morpholine and R^8-substituted morpholine;

R^7 is hydrogen, alkyl, aryl or arylalkyl;

R^8 is hydrogen, aryl, alkyl, arylalkyl or heteroaryl;

R^9 is hydrogen, alkyl, aryl, R^{10}-substituted aryl, heteroaryl or arylalkyl;

R^{10} is selected from the group consisting of aralkyl, heteroaralkyl, hydroxy, hydroxyalkyl, alkoxy, aryloxy, aralkoxy, acyl, aroyl, halo, nitro, cyano, carboxy, alkoxycarbonyl, aryloxycarbonyl, aralkoxycarbonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, alkylthio, arylthio, heteroarylthio, aralkylthio, heteroaralkylthio, cycloalkyl, heterocyclyl, Y_1Y_2N-, Y_1Y_2N-alkyl-, $Y_1Y_2NC(O)$- and $Y_1Y_2NSO_2$-, wherein Y_1 and Y_2 may be the same or different and are independently selected from the group consisting of hydrogen, alkyl, aryl, and aralkyl;

$R^{11}$is hydrogen, alkyl or arylalkyl;

R^{12} is $-C(O)R^{13}$, $-S(O)_2R^{13}$, $-C(O)NR^3R^4$ or $-C(O)OR^{13}$;

and

R^{13} is alkyl, aryl, R^{10}-substituted aryl, heteroaryl or arylalkyl.

6. The compound of claim 5 wherein

G is halo;

R^1 is hydrogen, alkyl, cyclopropyl or cyclopropylmethyl;

R^2 is hydrogen;

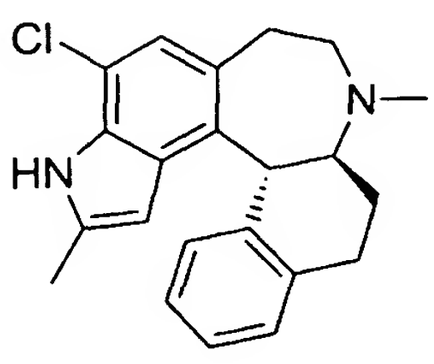
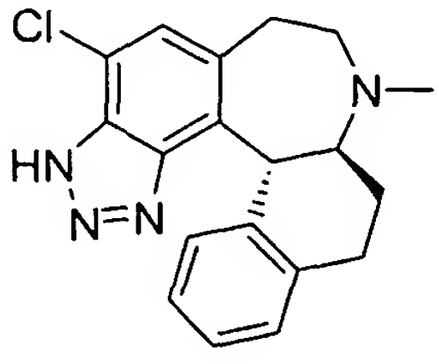
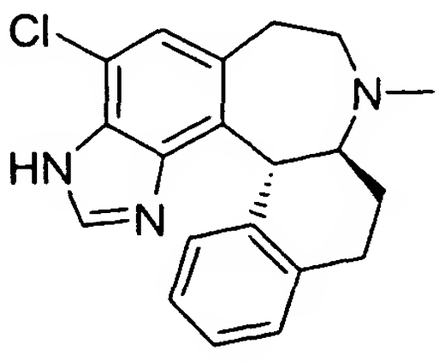
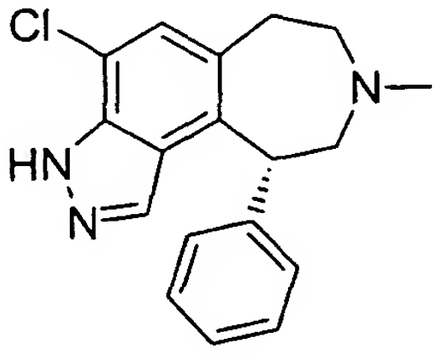
and

W is S or O.

7. The compound of claim 5 wherein G is chloro.

8. The compound of claim 5 wherein R^1 is hydrogen or methyl.

9. The compound of claim 1 selected from the group consisting of

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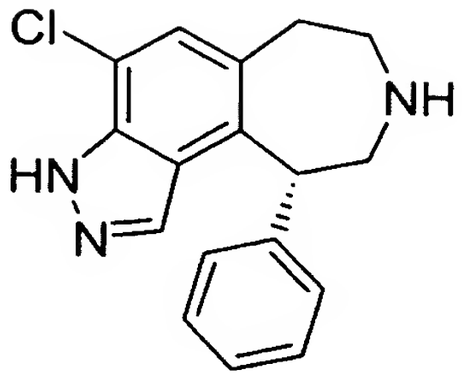
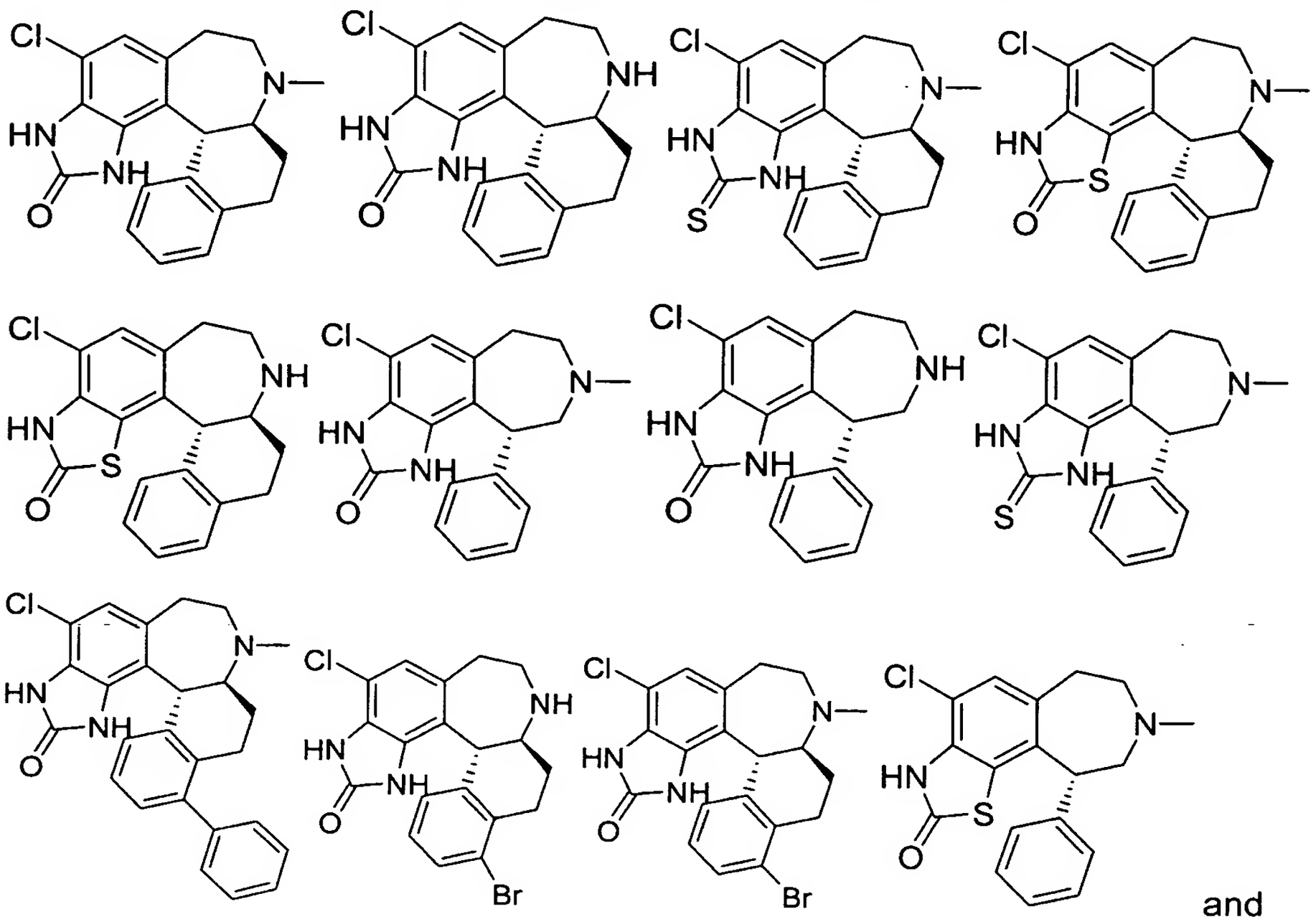
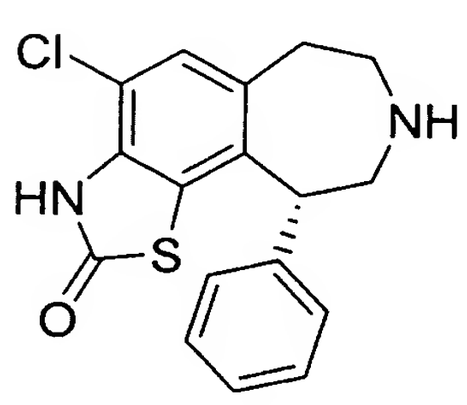


or a pharmaceutically acceptable salt or solvate thereof.

10. The compound of claim 5 selected from the group consisting of



and



or a pharmaceutically acceptable salt or solvate thereof.

11. A method of treating a metabolic disorder, an eating disorder or diabetes comprising administering to a patient a therapeutically effective amount of at least one compound of claim 1 to a patient in need of such treatment.

12. A method of treating a metabolic disorder, an eating disorder or diabetes comprising administering to a patient a therapeutically effective amount of at least one compound of claim 5 to a patient in need of such treatment.

13. A method of treating a metabolic disorder, an eating disorder or diabetes comprising administering to a patient a therapeutically effective amount of at least one compound of claim 9 to a patient in need of such treatment.

14. A method of treating a metabolic disorder, an eating disorder or diabetes comprising administering to a patient a therapeutically effective amount of at least one compound of claim 10 to a patient in need of such treatment.

15. The method of claim 11 wherein said eating disorder is hyperphagia.

16. The method of claim 11 wherein said metabolic disorder is obesity.

17. The method of claim 12 wherein said eating disorder is hyperphagia.

18. The method of claim 12 wherein said metabolic disorder is obesity.

19. The method of claim 13 wherein said metabolic disorder is hyperphagia.

20. The method of claim 13 wherein said metabolic disorder is obesity.

21. A method of treating a disorder associated with obesity comprising administering to a patient in need of such treatment a therapeutically effective amount of at least one compound of claim 1, or a pharmaceutically acceptable salt or solvate of said compound.

22. The method of claim 21 wherein said disorder associated with obesity is at least one of type II diabetes, insulin resistance, hyperlipidemia or hypertension.

23. A method for treating a human afflicted with a disorder selected from the group consisting of obsessive-compulsive disorder, somatoform disorders, dissociative disorders, eating disorders, impulse control disorders, trichotillomania and autism, said method comprising administering an effective amount of the compound of claim 1.

24. A method for treating a human afflicted with a disorder selected from the group consisting of obsessive-compulsive disorder, somatoform disorders, dissociative disorders, eating disorders, impulse control disorders, trichotillomania and autism, said method comprising administering an effective amount of the compound of claim 5.

25. The method of claim 23, wherein the eating disorders are selected from the group consisting of anorexia nervosa, bulimia, and binge eating.

26. The method of claim 24, wherein the eating disorders are selected from the group consisting of anorexia nervosa, bulimia, and binge eating.

27. The method of claim 23, wherein the disorder is an impulse control disorder from the group consisting of pathological gambling, compulsive buying, and sexual compulsion.

28. The method of claim 24, wherein the disorder is an impulse control disorder from the group consisting of pathological gambling, compulsive buying, and sexual compulsion.

29. A method of treating an eating disorder, which comprises administering to a patient in need of such treatment

an amount of a first compound, said first compound being a compound of claim 1, or a pharmaceutically acceptable salt or solvate of said compound;

and

a second compound, said second compound being an anti-obesity and/or anorectic agent selected from the group consisting of a β_3 agonist, a thryomimetic agent, an anorectic agent and an NPY antagonist;

wherein the amounts of the first and second compounds result in a therapeutic effect.

30. A pharmaceutical composition, which comprises a therapeutically effective amount of:

a first compound, said first compound being a compound of claim 1, or a pharmaceutically acceptable salt or solvate of said compound;

a second compound, said second compound being an anti-obesity and/or anorectic agent selected from the group consisting of a β_3 agonist, a thryomimetic agent, an anorectic agent and NPY antagonist; and

a pharmaceutically acceptable carrier.

31. A pharmaceutical composition, which comprises a therapeutically effective amount of:

a first compound, said first compound being a compound of claim 1, or a pharmaceutically acceptable salt or solvate of said compound;

a second compound, said second compound selected from the group consisting of an aldose reductase inhibitor, a glycogen phosphorylase inhibitor, a sorbitol dehydrogenase inhibitor, a protein tyrosine phosphatase 1B inhibitor, a dipeptidyl protease inhibitor, insulin, an insulin mimetic, metformin, acarbose, troglitazone, rosaglitazone, pioglitazone, GW-1929, a sulfonylurea, glipazide, glyburide and chlorpropamide; and

a pharmaceutically acceptable carrier.

32. A pharmaceutical composition comprising a therapeutically effective amount of at least one compound of claim 1 in combination with at least one pharmaceutically acceptable carrier.

33. A pharmaceutical composition comprising a therapeutically effective amount of at least one compound of claim 5 in combination with at least one pharmaceutically acceptable carrier.

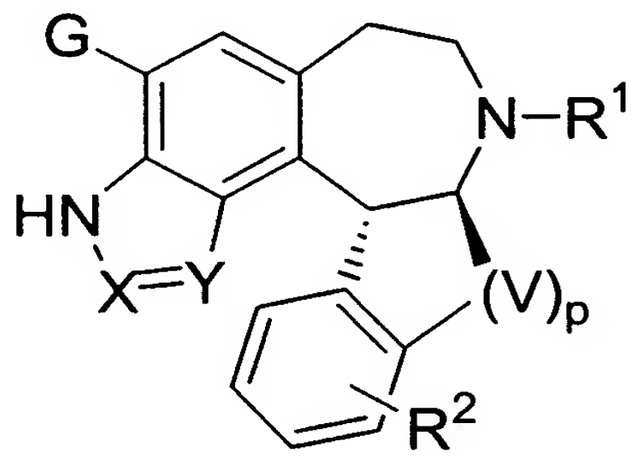
34. A pharmaceutical composition comprising a therapeutically effective amount of at least one compound of claim 9 in combination with at least one pharmaceutically acceptable carrier.

35. A pharmaceutical composition comprising a therapeutically effective amount of at least one compound of claim 10 in combination with at least one pharmaceutically acceptable carrier.

36. A process for making a pharmaceutical composition comprising combining at least one compound of claim 1, and at least one pharmaceutically acceptable carrier.

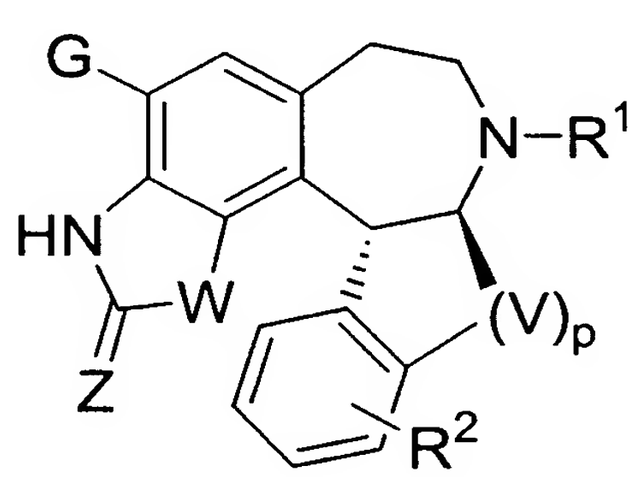
37. A process for making a pharmaceutical composition comprising combining at least one compound of claim 5, and at least one pharmaceutically acceptable carrier.

38. A compound of claim 1 having the absolute stereochemistry as shown in the formula



or a pharmaceutically acceptable salt or solvate thereof.

39. A compound of claim 5 having the absolute stereochemistry as shown in the formula



or a pharmaceutically acceptable salt or solvate thereof.